URS

October 29, 2013

Duke Energy
Miami Fort Generating Station
11021 Brower Road
North Bend, OH 45052

Attention: Mr. Michael Byrd
Environmental Coordinator

Re: Results – **October 2013**
Low-Level Mercury Sampling
Miami Fort Generating Station
North Bend, Ohio

In accordance with your request, URS prepared the following letter report transmitting low-level mercury test results for samples collected at the Miami Fort Generating Station located in North Bend, Ohio.

The scope of work involved the sampling of intake and discharge waters from the following sources and analysis of those samples for low-level mercury.

1. River Intake
2. Station 601 (WWT Influent)
   [Samples were collected at this station one detention time (approximately 14 hours as specified by Duke Energy) before samples collected at Outfall 608]
3. Outfall 608 (WWT Effluent)
   [Samples were collected at this outfall one detention time (approximately 14 hours as specified by Duke Energy) after samples collected at station 601]
4. Outfall 002 (Pond B Discharge)

Each sample was collected following the required Method 1669: *Sampling Ambient Water for Determination of Trace Metals at EPA Water Quality Criteria Levels* (Sampling Method) and analyzed by Method 1631E. At the request of Duke Energy, a dissolved low-level mercury sample was collected by Method 1669 from Outfall 608 and analyzed by Method 1631E. The collected dissolved sample was filtered at the laboratory utilizing 0.45 micron filtration.

Field staff from URS' Cincinnati office conducted the sampling and TestAmerica Laboratories Inc. located in North Canton, Ohio performed the analytical procedures. The analytical procedures included the analyses of a collected sample and duplicate sample (duplicates collected at Outfall 608 and Outfall 002), field blank (field blanks collected at the River Intake, Outfall 608, and Outfall 002), and trip blank.

URS Corporation
525 Vine Street, Suite 1800
Cincinnati, Ohio 45202
Tel: 513.651.3440
Fax: 1.877.660.7720 (toll free)

The results from the **October 1 and 2, 2013** sampling events are presented in the attached Table 1. A copy of the laboratory report is enclosed with this letter.

--ooOoo--

URS is pleased to provide continued assistance to Duke Energy in the execution of their environmental monitoring requirements. If there are any questions regarding the content of this report, please do not hesitate to contact the undersigned.

Sincerely,

URS Corporation

Michael A. Wagner
Project Manager

Dennis P. Connair, C.P.G.
Principal

MAW/DPC/Duke Energy-MFS LL Hg 2013
Job No. 14951061

TABLE 1

ANALYTICAL RESULTS
LOW-LEVEL MERCURY
RIVER INTAKE, STATION 601, OUTFALL 608, AND OUTFALL 002 (POND B)

DUKE ENERGY - MIAMI FORT STATION
NORTH BEND, OHIO

	Date Sampled / Results (ng/L, parts per trillion)					
Sample ID	**1/2-3/2013**	**2/4-5/2013**	**3/4-5/2013**	**4/1-2/2013**	**5/1-2/2013**	**6/3-4/2013**
River Intake	4.1	15	6.0	2.1	1.8	1.8
Station 601 (7)	730,000	320,000	82,000	94,000	Not in Service	180,000
Station 601 (7) [duplicate]	Not Collected	Not Collected	Not Collected	Not Collected		Not Collected
Station 601 (8)	330,000	370,000	140,000	130,000	280,000	130,000
Station 601 (8) [duplicate]	Not Collected	Not Collected	Not Collected	Not Collected	Not Collected	Not Collected
Outfall 608	50	54	110	49	91	2.3
Outfall 608 [duplicate]	46	55	110	50	92	2.4
Outfall 608 [dissolved, 0.45 micron]	0.63	<0.50	1.2	<0.50	<0.50	0.72
APB-002	5.1	9.1	4.8	1.9	3.5	3.5
APB-002 [duplicate]	5.3	9.3	4.8	1.8	3.7	3.6
Field Blank (RI-FB)	1.0	1.2	2.5	1.6	1.1	0.87
Field Blank (WWT-FB)	<0.50	<0.50	9.1	<0.50	<0.50	<0.50
Field Blank (AP-FB)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trip Blank	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

Samples collected by URS (Method 1669)
Sampling times are noted within the associated laboratory report for each collected sample
Samples analyzed by TestAmerica of North Canton, Ohio (Method 1631E).

TABLE 1 (continued)

Sample ID	Date Sampled / Results (ng/L, parts per trillion)					
	7/1-2/2013	8/1-2/2013	9/3-4/2013	10/1-2/2013	11/xx/2013	12/xx/2013
River Intake	3.8	3.6	2.4	1.4		
Station 601 (7)	210,000	110,000	490,000	21,000		
Station 601 (7) [duplicate]	Not Collected	Not Collected	Not Collected	Not Collected		
Station 601 (8)	200,000	99,000	480,000	23,000		
Station 601 (8) [duplicate]	Not Collected	Not Collected	Not Collected	Not Collected		
Outfall 608	250	69	150	260		
Outfall 608 [duplicate]	240	63	150	270		
Outfall 608 [dissolved, 0.45 micron]	33	<0.50	14	26		
APB-002	4.0	6.6	2.2	3.7		
APB-002 [duplicate]	3.9	6.3	2.2	3.8		
Field Blank (RI-FB)	0.89	<0.50	<0.50	<0.50		
Field Blank (WWT-FB)	<0.50	<0.50	<0.50	<0.50		
Field Blank (AP-FB)	<0.50	<0.50	<0.50	<0.50		
Trip Blank	<0.50	<0.50	<0.50	<0.50		

Samples collected by URS (Method 1669) Samples analyzed by TestAmerica of North Canton, Ohio
Sampling times are noted within the associated laboratory report for each collected sample
Samples analyzed by TestAmerica of North Canton, Ohio (Method 1631E).

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-29761-1
Client Project/Site: Miami Fort Station - J13100154

For:
Duke Energy Corporation
139 East Fourth Street
Cincinnati, Ohio 45202

Attn: Tara Thomas

Authorized for release by:
10/17/2013 5:15:45 PM
John McFadden, Project Manager I
john.mcfadden@testamericainc.com

Designee for

Denise Pohl, Project Manager II
(330)966-9789
denise.pohl@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-29761-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Duke Energy Corporation

Project: Miami Fort Station - J13100154

Report Number: 240-29761-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 10/03/2013; the samples arrived in good condition. The temperature of the cooler at receipt was 20.8 C.

DISSOLVED LOW LEVEL MERCURY

Sample OUTFALL 608 DISS (240-29761-8) was analyzed for dissolved Low Level Mercury in accordance with EPA Method 1631E. The samples were prepared on 10/09/2013 and analyzed on 10/10/2013.

Sample OUTFALL 608 DISS (240-29761-8)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the Low Level Mercury analysis. All quality control parameters were within the acceptance limits.

LOW LEVEL MERCURY

Samples STATION 601 (7) WWT (240-29761-1), STATION 601 (8) WWT (240-29761-2), RIVER INTAKE (RI) FB (240-29761-3), RIVER INTAKE (RI) (240-29761-4), OUTFALL 608 FB (240-29761-5), OUTFALL 608 (240-29761-6), OUTFALL 608 DUP (240-29761-7), OUTFALL 002 FB (240-29761-9), OUTFALL 002 (240-29761-10), OUTFALL 002 DUP (240-29761-11) and TRIP BLANK (240-29761-12) were analyzed for Low Level Mercury in accordance with EPA Method 1631E. The samples were prepared on 10/14/2013 and analyzed on 10/15/2013.

Samples STATION 601 (7) WWT (240-29761-1)[2000X], STATION 601 (8) WWT (240-29761-2)[1000X], OUTFALL 608 (240-29761-6)[20X] and OUTFALL 608 DUP (240-29761-7)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Job ID: 240-29761-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

No difficulties were encountered during the Low Level Mercury analysis. All quality control parameters were within the acceptance limits.

Method Summary

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Method	Method Description	Protocol	Laboratory
1631E	Mercury, Low Level (CVAFS)	EPA	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-29761-1	STATION 601 (7) WWT	Water	10/01/13 17:00	10/03/13 09:20
240-29761-2	STATION 601 (8) WWT	Water	10/01/13 16:50	10/03/13 09:20
240-29761-3	RIVER INTAKE (RI) FB	Water	10/01/13 17:10	10/03/13 09:20
240-29761-4	RIVER INTAKE (RI)	Water	10/01/13 17:15	10/03/13 09:20
240-29761-5	OUTFALL 608 FB	Water	10/02/13 08:40	10/03/13 09:20
240-29761-6	OUTFALL 608	Water	10/02/13 08:45	10/03/13 09:20
240-29761-7	OUTFALL 608 DUP	Water	10/02/13 08:50	10/03/13 09:20
240-29761-8	OUTFALL 608 DISS	Water	10/02/13 08:55	10/03/13 09:20
240-29761-9	OUTFALL 002 FB	Water	10/02/13 09:05	10/03/13 09:20
240-29761-10	OUTFALL 002	Water	10/02/13 09:10	10/03/13 09:20
240-29761-11	OUTFALL 002 DUP	Water	10/02/13 09:15	10/03/13 09:20
240-29761-12	TRIP BLANK	Water	10/02/13 00:00	10/03/13 09:20

Detection Summary

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Client Sample ID: STATION 601 (7) WWT — Lab Sample ID: 240-29761-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Mercury	21000		1000		ng/L	2000		1631E	Total/NA

Client Sample ID: STATION 601 (8) WWT — Lab Sample ID: 240-29761-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Mercury	23000		500		ng/L	1000		1631E	Total/NA

Client Sample ID: RIVER INTAKE (RI) FB — Lab Sample ID: 240-29761-3

No Detections.

Client Sample ID: RIVER INTAKE (RI) — Lab Sample ID: 240-29761-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Mercury	1.4		0.50		ng/L	1		1631E	Total/NA

Client Sample ID: OUTFALL 608 FB — Lab Sample ID: 240-29761-5

No Detections.

Client Sample ID: OUTFALL 608 — Lab Sample ID: 240-29761-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Mercury	260		10		ng/L	20		1631E	Total/NA

Client Sample ID: OUTFALL 608 DUP — Lab Sample ID: 240-29761-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Mercury	270		10		ng/L	20		1631E	Total/NA

Client Sample ID: OUTFALL 608 DISS — Lab Sample ID: 240-29761-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Mercury	26		1.0		ng/L	2		1631E	Dissolved

Client Sample ID: OUTFALL 002 FB — Lab Sample ID: 240-29761-9

No Detections.

Client Sample ID: OUTFALL 002 — Lab Sample ID: 240-29761-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Mercury	3.7		0.50		ng/L	1		1631E	Total/NA

Client Sample ID: OUTFALL 002 DUP — Lab Sample ID: 240-29761-11

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Mercury	3.8		0.50		ng/L	1		1631E	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Client Sample ID: TRIP BLANK **Lab Sample ID: 240-29761-12**

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Client Sample ID: STATION 601 (7) WWT
Date Collected: 10/01/13 17:00
Date Received: 10/03/13 09:20

Lab Sample ID: 240-29761-1
Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	21000		1000		ng/L		10/14/13 15:50	10/15/13 16:18	2000

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Client Sample ID: STATION 601 (8) WWT
Date Collected: 10/01/13 16:50
Date Received: 10/03/13 09:20

Lab Sample ID: 240-29761-2
Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	23000		500		ng/L		10/14/13 15:50	10/15/13 14:52	1000

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Client Sample ID: RIVER INTAKE (RI) FB
Date Collected: 10/01/13 17:10
Date Received: 10/03/13 09:20

Lab Sample ID: 240-29761-3
Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50		ng/L		10/14/13 15:50	10/15/13 14:56	1

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Client Sample ID: RIVER INTAKE (RI)
Date Collected: 10/01/13 17:15
Date Received: 10/03/13 09:20

Lab Sample ID: 240-29761-4
Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.4		0.50		ng/L		10/14/13 15:50	10/15/13 14:59	1

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Client Sample ID: OUTFALL 608 FB
Date Collected: 10/02/13 08:40
Date Received: 10/03/13 09:20

Lab Sample ID: 240-29761-5
Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50		ng/L		10/14/13 15:50	10/15/13 15:04	1

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Client Sample ID: OUTFALL 608
Date Collected: 10/02/13 08:45
Date Received: 10/03/13 09:20

Lab Sample ID: 240-29761-6
Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	260		10		ng/L		10/14/13 15:50	10/15/13 16:23	20

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Client Sample ID: OUTFALL 608 DUP
Date Collected: 10/02/13 08:50
Date Received: 10/03/13 09:20

Lab Sample ID: 240-29761-7
Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	270		10		ng/L		10/14/13 15:50	10/15/13 16:28	20

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Client Sample ID: OUTFALL 608 DISS
Date Collected: 10/02/13 08:55
Date Received: 10/03/13 09:20

Lab Sample ID: 240-29761-8
Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	26		1.0		ng/L		10/09/13 14:19	10/10/13 10:30	2

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Client Sample ID: OUTFALL 002 FB
Date Collected: 10/02/13 09:05
Date Received: 10/03/13 09:20

Lab Sample ID: 240-29761-9
Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50		ng/L		10/14/13 15:50	10/15/13 15:16	1

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Client Sample ID: OUTFALL 002
Date Collected: 10/02/13 09:10
Date Received: 10/03/13 09:20

Lab Sample ID: 240-29761-10
Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	3.7		0.50		ng/L		10/14/13 15:50	10/15/13 15:19	1

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Client Sample ID: OUTFALL 002 DUP
Date Collected: 10/02/13 09:15
Date Received: 10/03/13 09:20

Lab Sample ID: 240-29761-11
Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	3.8		0.50		ng/L		10/14/13 15:50	10/15/13 15:33	1

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Client Sample ID: TRIP BLANK
Date Collected: 10/02/13 00:00
Date Received: 10/03/13 09:20

Lab Sample ID: 240-29761-12
Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50		ng/L		10/14/13 15:50	10/15/13 15:37	1

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 240-104882/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105101 — **Prep Batch: 104882**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50		ng/L		10/09/13 14:19	10/10/13 09:43	1

Lab Sample ID: LCS 240-104882/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105101 — **Prep Batch: 104882**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			5.00	4.95		ng/L		99	77 - 123		

Lab Sample ID: MB 240-105476/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105656 — **Prep Batch: 105476**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50		ng/L		10/14/13 15:50	10/15/13 14:40	1

Lab Sample ID: LCS 240-105476/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105656 — **Prep Batch: 105476**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			5.00	4.77		ng/L		95	77 - 123		

Lab Sample ID: 240-29761-10 MS — **Client Sample ID: OUTFALL 002**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105656 — **Prep Batch: 105476**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	3.7		5.00	8.23		ng/L		91	71 - 125		

Lab Sample ID: 240-29761-10 MSD — **Client Sample ID: OUTFALL 002**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105656 — **Prep Batch: 105476**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	3.7		5.00	8.26		ng/L		92	71 - 125	0	24

Lab Sample ID: PB 240-104881/1-B PB — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 105101 — **Prep Batch: 104882**

Analyte	PB Result	PB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50		ng/L		10/09/13 14:19	10/10/13 10:17	1

Metals

Filtration Batch: 104881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-29761-8	OUTFALL 608 DISS	Dissolved	Water	Filtration	
PB 240-104881/1-B PB	Method Blank	Dissolved	Water	Filtration	

Prep Batch: 104882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-29761-8	OUTFALL 608 DISS	Dissolved	Water	1631E	104881
LCS 240-104882/2-A	Lab Control Sample	Total/NA	Water	1631E	
MB 240-104882/1-A	Method Blank	Total/NA	Water	1631E	
PB 240-104881/1-B PB	Method Blank	Dissolved	Water	1631E	104881

Analysis Batch: 105101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-29761-8	OUTFALL 608 DISS	Dissolved	Water	1631E	104882
LCS 240-104882/2-A	Lab Control Sample	Total/NA	Water	1631E	104882
MB 240-104882/1-A	Method Blank	Total/NA	Water	1631E	104882
PB 240-104881/1-B PB	Method Blank	Dissolved	Water	1631E	104882

Prep Batch: 105476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-29761-1	STATION 601 (7) WWT	Total/NA	Water	1631E	
240-29761-2	STATION 601 (8) WWT	Total/NA	Water	1631E	
240-29761-3	RIVER INTAKE (RI) FB	Total/NA	Water	1631E	
240-29761-4	RIVER INTAKE (RI)	Total/NA	Water	1631E	
240-29761-5	OUTFALL 608 FB	Total/NA	Water	1631E	
240-29761-6	OUTFALL 608	Total/NA	Water	1631E	
240-29761-7	OUTFALL 608 DUP	Total/NA	Water	1631E	
240-29761-9	OUTFALL 002 FB	Total/NA	Water	1631E	
240-29761-10	OUTFALL 002	Total/NA	Water	1631E	
240-29761-10 MS	OUTFALL 002	Total/NA	Water	1631E	
240-29761-10 MSD	OUTFALL 002	Total/NA	Water	1631E	
240-29761-11	OUTFALL 002 DUP	Total/NA	Water	1631E	
240-29761-12	TRIP BLANK	Total/NA	Water	1631E	
LCS 240-105476/2-A	Lab Control Sample	Total/NA	Water	1631E	
MB 240-105476/1-A	Method Blank	Total/NA	Water	1631E	

Analysis Batch: 105656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-29761-1	STATION 601 (7) WWT	Total/NA	Water	1631E	105476
240-29761-2	STATION 601 (8) WWT	Total/NA	Water	1631E	105476
240-29761-3	RIVER INTAKE (RI) FB	Total/NA	Water	1631E	105476
240-29761-4	RIVER INTAKE (RI)	Total/NA	Water	1631E	105476
240-29761-5	OUTFALL 608 FB	Total/NA	Water	1631E	105476
240-29761-6	OUTFALL 608	Total/NA	Water	1631E	105476
240-29761-7	OUTFALL 608 DUP	Total/NA	Water	1631E	105476
240-29761-9	OUTFALL 002 FB	Total/NA	Water	1631E	105476
240-29761-10	OUTFALL 002	Total/NA	Water	1631E	105476
240-29761-10 MS	OUTFALL 002	Total/NA	Water	1631E	105476
240-29761-10 MSD	OUTFALL 002	Total/NA	Water	1631E	105476
240-29761-11	OUTFALL 002 DUP	Total/NA	Water	1631E	105476
240-29761-12	TRIP BLANK	Total/NA	Water	1631E	105476
LCS 240-105476/2-A	Lab Control Sample	Total/NA	Water	1631E	105476

Metals (Continued)

Analysis Batch: 105656 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-105476/1-A	Method Blank	Total/NA	Water	1631E	105476

Client Sample ID: STATION 601 (7) WWT — Lab Sample ID: 240-29761-1

Date Collected: 10/01/13 17:00 — **Matrix: Water**
Date Received: 10/03/13 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			105476	10/14/13 15:50	ADS	TAL CAN
Total/NA	Analysis	1631E		2000	105656	10/15/13 16:18	DSH	TAL CAN

Client Sample ID: STATION 601 (8) WWT — Lab Sample ID: 240-29761-2

Date Collected: 10/01/13 16:50 — **Matrix: Water**
Date Received: 10/03/13 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			105476	10/14/13 15:50	ADS	TAL CAN
Total/NA	Analysis	1631E		1000	105656	10/15/13 14:52	DSH	TAL CAN

Client Sample ID: RIVER INTAKE (RI) FB — Lab Sample ID: 240-29761-3

Date Collected: 10/01/13 17:10 — **Matrix: Water**
Date Received: 10/03/13 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			105476	10/14/13 15:50	ADS	TAL CAN
Total/NA	Analysis	1631E		1	105656	10/15/13 14:56	DSH	TAL CAN

Client Sample ID: RIVER INTAKE (RI) — Lab Sample ID: 240-29761-4

Date Collected: 10/01/13 17:15 — **Matrix: Water**
Date Received: 10/03/13 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			105476	10/14/13 15:50	ADS	TAL CAN
Total/NA	Analysis	1631E		1	105656	10/15/13 14:59	DSH	TAL CAN

Client Sample ID: OUTFALL 608 FB — Lab Sample ID: 240-29761-5

Date Collected: 10/02/13 08:40 — **Matrix: Water**
Date Received: 10/03/13 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			105476	10/14/13 15:50	ADS	TAL CAN
Total/NA	Analysis	1631E		1	105656	10/15/13 15:04	DSH	TAL CAN

Client Sample ID: OUTFALL 608 — Lab Sample ID: 240-29761-6

Date Collected: 10/02/13 08:45 — **Matrix: Water**
Date Received: 10/03/13 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			105476	10/14/13 15:50	ADS	TAL CAN
Total/NA	Analysis	1631E		20	105656	10/15/13 16:23	DSH	TAL CAN

Client Sample ID: OUTFALL 608 DUP

Lab Sample ID: 240-29761-7

Date Collected: 10/02/13 08:50

Matrix: Water

Date Received: 10/03/13 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			105476	10/14/13 15:50	ADS	TAL CAN
Total/NA	Analysis	1631E		20	105656	10/15/13 16:28	DSH	TAL CAN

Client Sample ID: OUTFALL 608 DISS

Lab Sample ID: 240-29761-8

Date Collected: 10/02/13 08:55

Matrix: Water

Date Received: 10/03/13 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	Filtration			104881	10/03/13 08:13	DSH	TAL CAN
Dissolved	Prep	1631E			104882	10/09/13 14:19	DSH	TAL CAN
Dissolved	Analysis	1631E		2	105101	10/10/13 10:30	DSH	TAL CAN

Client Sample ID: OUTFALL 002 FB

Lab Sample ID: 240-29761-9

Date Collected: 10/02/13 09:05

Matrix: Water

Date Received: 10/03/13 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			105476	10/14/13 15:50	ADS	TAL CAN
Total/NA	Analysis	1631E		1	105656	10/15/13 15:16	DSH	TAL CAN

Client Sample ID: OUTFALL 002

Lab Sample ID: 240-29761-10

Date Collected: 10/02/13 09:10

Matrix: Water

Date Received: 10/03/13 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			105476	10/14/13 15:50	ADS	TAL CAN
Total/NA	Analysis	1631E		1	105656	10/15/13 15:19	DSH	TAL CAN

Client Sample ID: OUTFALL 002 DUP

Lab Sample ID: 240-29761-11

Date Collected: 10/02/13 09:15

Matrix: Water

Date Received: 10/03/13 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			105476	10/14/13 15:50	ADS	TAL CAN
Total/NA	Analysis	1631E		1	105656	10/15/13 15:33	DSH	TAL CAN

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-29761-12

Date Collected: 10/02/13 00:00

Matrix: Water

Date Received: 10/03/13 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			105476	10/14/13 15:50	ADS	TAL CAN
Total/NA	Analysis	1631E		1	105656	10/15/13 15:37	DSH	TAL CAN

Lab Chronicle

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: Duke Energy Corporation
Project/Site: Miami Fort Station - J13100154

TestAmerica Job ID: 240-29761-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-14 *
Kansas	NELAP	7	E-10336	01-31-14
Kentucky	State Program	4	58	06-30-14
L-A-B	DoD ELAP		L2315	07-18-16
Nevada	State Program	9	OH-000482008A	07-31-14
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-14 *
Texas	NELAP	6		08-31-14 *
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-14
Washington	State Program	10	C971	01-12-14
Wisconsin	State Program	5	999518190	08-31-14

* Expired certification is currently pending renewal and is considered valid.

2018

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Duke Energy SM

For Detailed Instructions, see:
http://dewww/essenv/coc/

Analytical Laboratory Services
Mail Code MGO3A2 (Building 7405)
13339 Hagers Ferry Rd
Huntersville, N. C. 28078
(704) 875-5245
Fax: (704) 875-4349

Analytical Laboratory Use Only

LIMS #	Sample Class NPDES	Samples Originating From	OH_X_
Logged By	Date & Time		
Vendor	URS (sample) Test America (v.lab)	SAMPLE PROGRAM NPDES _X_	

[19]Page _1__ of __1_
DISTRIBUTION
ORIGINAL to LAB,
COPY to CLIENT

Customer must Complete

1)Project NPDES - Monthly(Hg-1631)	2)Phone No: 513-467-4950
3)Client Miami Fort Station - Michael Byrd	4)Fax No:
5) Corp: / 6) Center:	7)Mail Code:
8) Work Code: / 9) LOB:	

PO #

Cooler Temp (C)

[15]Preserv.:1=HCl 2=H_2SO_4 3=HNO_3 4=Ice 5=None

Customer to complete all appropriate NON-SHADED areas.

[14]Collection Information

LAB USE ONLY	12) Vendor ID#	[13]Sample Description or ID	Date	Time	Signature	[17]Comp.	[18]Grab	[16]Analyses Required: Hg - 1631	Diss. Hg* - 1631	[20]Total # of Containers
								5	5	
		Station 601 (7) WWT *	10-1-13	1700	Katie Ritchard		x	4		4
		Station 601 (8) WWT *✓	10-1-13	1650	Katie Ritchard		x	4		4
		River Intake (RI) FB	10-1-13	1710	Katie Ritchard		x	2		2
		River Intake (RI)	10-1-13	1715	Katie Ritchard		x	4		4
		Outfall 608 FB	10-2-13	0840	Katie Ritchard		x	2		2
		Outfall 608	"	0845	Katie Ritchard		x	4		4
		Outfall 608 Dup	"	0850	Katie Ritchard		x	4		4
		Outfall 608 Diss	"	0855	Katie Ritchard		x		4	4
		Outfall 002 FB	10-2-13	0905	Katie Ritchard		x	2		2
		Outfall 002	"	0910	Katie Ritchard		x	4		4
		Outfall 002 Dup	"	0915	Katie Ritchard		x	4		4
		Trip Blank	—	—	Katie Ritchard		x	1		1

Customer to complete columns to right

Customer to sign & date below

21)Relinquished By	Date/Time 10-02-13 / 1200	Accepted By:	Date/Time 10/3/13 1235
Relinquished By	Date/Time 10/2/13 1380	Accepted By:	Date/Time 10/3/13 920
Relinquished By	Date/Time	Accepted By:	Date/Time
23)Seal/Locked By	Date/Time	Sealed/Lock Opened By	Date/Time

24)Comments *(0.45micron, laboratory to filter)
* MAY CONTAIN ELEVATED Hg ✓ VISIT IN STARTUP - MAY CONTAIN DRO

Customer, important please indicate desired turnaround

[22]Requested Turnaround
14 Days ____
*10 Days X
*48 Hr ____
*Other ____
* Add. Cost Will Apply

** N. CANTON LABS **

240-29761 Chain of Custody

Page 29 of 30

10/17/2013

TestAmerica Canton Sample Receipt Form/Narrative Login # : 29760
Canton Facility

Client Duke Site Name

Cooler unpacked by:

Cooler Received on 10/3/13 Opened on 10/3/13

FedEx: 1st (Grd) Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # Foam Box (Client Cooler) Box Other

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water (None)

1. Cooler temperature upon receipt

IR GUN# A	(CF +2 °C) Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	
IR GUN# 4	(CF +1 °C) Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	☐ See Multiple Cooler Form
IR GUN# 5	(CF +2 °C) Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	
IR GUN# 8	(CF -0 °C) Observed Cooler Temp. 20.8 °C	Corrected Cooler Temp. 20.8 °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? Yes No (NA) pH Strip Lot# HC376062
11. Were VOAs on the COC? Yes (No)
12. Were air bubbles >6 mm in any VOA vials? Yes No (NA)
13. Was a trip blank present in the cooler(s)? Yes (No)

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other
Concerning ____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

High temp ok

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container.
Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.
Time preserved: ____ Preservative(s) added/Lot number(s): ____